

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listing of claims in the application:

Listing of Claims:

Claims 1-6 (Canceled)

7. (New) A method of obtaining electrolytic manganese from ferroalloy manufacturing waste or any other industrial waste having manganese and an inert weight, comprising

an initial sulfation phase;

a hydrometallurgical phase comprising the steps of lixiviation, primary purification, secondary purification and conditioning; and

an electrolysis phase, wherein

said waste is made to disappear, producing a secondary waste having half the inert weight and having the property of being self-compactable;

an initial sulfation process with near-stoichiometric acid consumptions is used;

the removal of impurities, primarily of iron and aluminum, is caused primarily by pH control, minimizing equipment used and time the equipment is used;

the removal of base metal impurities, mainly zinc, is caused by means of a precipitation thereof in the form of sulfurs suitable for other uses; and wherein

electrolyzed solutions are obtained having which produce manganese with a 99.9% purity.

8. (New) The method of claim 7, wherein the sulfation phase is carried out in a furnace in which exothermic

reactions occur inside the furnace and on PTFE trays, generating SO₂ gases.

9. (New) The method of claim 7, wherein the lixiviation and primary purification steps are carried out with a consumed anolyte of an electrolysis cell or alternatively with a synthetic anolyte.

10. (New) The method of claim 7, wherein in said lixiviation step, an anolyte is used as a lixiviation agent, and wherein said lixiviation step is carried out with strong stirring in a reactor coated with antacid.

11. (New) The method of claim 7, wherein the primary purification step is carried out in the same reactor of the lixiviation until raising the pH of the pulp to values near neutral pH, and the resulting pulp is then subjected to filtering in a filter press and washing with water, preferably in the filter press itself, obtaining an inert waste.

12. (New) The method of claim 7, wherein the washing water of the pulp used as added water to a mixer in the initial phase of the process, or it can be re-used successive times to concentrate the manganese therein.